

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.**

Application Serial Number: 10/527,469  
Source: PG  
Date Processed by STIC: 6/30/06

# ***ENTERED***



PCT

## RAW SEQUENCE LISTING

DATE: 06/30/2006

PATENT APPLICATION: US/10/527,469

TIME: 08:38:25

Input Set : F:\P1975R1.txt

Output Set: N:\CRF4\06302006\J527469.raw

3 <110> APPLICANT: SARAH C. BODARY  
 4 HILARY CLARK  
 5 BRISDELL HUNTE  
 6 JANET K. JACKMAN  
 7 JILL SCHOENFELD  
 8 P. MICKEY WILLIAMS  
 9 WILLIAM I. WOOD  
 10 THOMAS D. WU  
 12 <120> TITLE OF INVENTION: NOVEL COMPOSITIONS AND METHODS FOR THE TREATMENT OF  
 13 IMMUNE RELATED DISEASES  
 15 <130> FILE REFERENCE: P1975R1 US  
 17 <140> CURRENT APPLICATION NUMBER: US 10/527,469  
 18 <141> CURRENT FILING DATE: 2005-03-10  
 20 <150> PRIOR APPLICATION NUMBER: PCT/US03/028361  
 21 <151> PRIOR FILING DATE: 2003-09-10  
 23 <150> PRIOR APPLICATION NUMBER: US 60/410,174  
 24 <151> PRIOR FILING DATE: 2002-09-11  
 26 <160> NUMBER OF SEQ ID NOS: 104  
 28 <210> SEQ ID NO: 1  
 29 <211> LENGTH: 1761  
 30 <212> TYPE: DNA  
 31 <213> ORGANISM: Homo sapiens  
 33 <400> SEQUENCE: 1  
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 36 taatgagcag ctgaagggtta atcaggaagc tttggagatc ctgtctgcca 100  
 38 ttacgcaacc tgtagttgtg gtagcgattg tgggcctcta tcgcaactggc 150  
 40 aaatcctacc tgatgaacaa gctggctggg aagaacaagg gcttctctgt 200  
 42 tgcattctacg gtgcagctctc acaccaaggg aatttggata tgggtgtgtgc 250  
 44 ctcatcccaa ctggccaaat cacacattag ttctgcttga caccgagggc 300  
 46 ctgggagatg tagagaaggc tgacaacaag aatgatattc agatctttgc 350  
 48 actggcactc ttactgagca gcacctttgt gtacaatact gtgaacaaaa 400  
 50 ttgatcaggg tgctatcgac ctactgcaca atgtgacaga actgacagat 450  
 52 ctgctcaagg caagaaactc acccgacctt gacagggttg aagatcctgc 500  
 54 tgactctgcg agcttcttcc cagacttagt gtggactctg agagatttct 550  
 56 gcttaggcct ggaaatagat gggcaacttg tcacaccaga tgaatacctg 600  
 58 gagaattccc taaggccaaa gcaaggtagt gatcaaagag ttcaaaattt 650  
 60 caatttgcct cgtctgtgta tacagaagtt ctttccaaaa aagaaatgct 700  
 62 ttatctttga cttacctgct caccacaaaa agcttgccca acttgaaaca 750  
 64 ctgcctgatg atgagctaga gcctgaattt gtgcaacaag tgacagaatt 800  
 66 ctgttcttac atcttttagcc attctatgac caagactctt ccagggtggc 850  
 68 tcatggtcaa tggatctcgt ctaaagaacc tgggtgctgac ctatgtcaat 900  
 70 gccatcagca gtggggatct gccttgcata gagaatgcag tcctggcctt 950  
 72 ggctcagaga gagaactcag ctgcagtgcg aaaggccatt gccactatg 1000

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74  accagcaaat gggccagaaa gtgcagctgc ccatggaaac cctccaggag 1050
76  ctgctggacc tgcacaggac cagtgaagagg gagggcattg aagtcttcat 1100
78  gaaaaactct ttcaaggatg tagaccaaag tttccagaaa gaattggaga 1150
80  ctctactaga tgcaaaacag aatgacattt gtaaacggaa cctggaagca 1200
82  tcctcggatt attgctcggc tttacttaag gatatttttg gtcctctaga 1250
84  agaagcagtg aagcagggaa tttattctaa gccaggaggc cataatctct 1300
86  tcattcagaa aacagaagaa ctgaaggcaa agtactatcg ggagcctcgg 1350
88  aaaggaatac aggctgaaga agttctgcag aaatatttaa agtccaagga 1400
90  gtctgtgagt catgcaatat tacagactga ccaggctctc acagagacgg 1450
92  aaaaaaagaa gaaagaggca caagtgaagc cagaagctga aaaggctgaa 1500
94  gcgcaaaggt tggcggcgat tcaaaggcag aacgagcaaa tgatgcagga 1550
96  gagggagaga ctccatcagg aacaagtgag acaaatggag atagccaaac 1600
98  aaaattggct ggcagagcaa cagaaaatgc aggaacaaca gatgcaggaa 1650
100 caggctgcac agctcagcac aacattccaa gctcaaaata gaagccttct 1700
102 cagtgaagctc cagcagccc agaggactgt taataacgat gatccatgtg 1750
104 ttttactcta a 1761
106 <210> SEQ ID NO: 2
107 <211> LENGTH: 586
108 <212> TYPE: PRT
109 <213> ORGANISM: Homo sapiens
111 <400> SEQUENCE: 2
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113 1 5 10 15
115 Asn Phe Asn Glu Gln Leu Lys Val Asn Gln Glu Ala Leu Glu Ile
116 20 25 30
118 Leu Ser Ala Ile Thr Gln Pro Val Val Val Val Ala Ile Val Gly
119 35 40 45
121 Leu Tyr Arg Thr Gly Lys Ser Tyr Leu Met Asn Lys Leu Ala Gly
122 50 55 60
124 Lys Asn Lys Gly Phe Ser Val Ala Ser Thr Val Gln Ser His Thr
125 65 70 75
127 Lys Gly Ile Trp Ile Trp Cys Val Pro His Pro Asn Trp Pro Asn
128 80 85 90
130 His Thr Leu Val Leu Leu Asp Thr Glu Gly Leu Gly Asp Val Glu
131 95 100 105
133 Lys Ala Asp Asn Lys Asn Asp Ile Gln Ile Phe Ala Leu Ala Leu
134 110 115 120
136 Leu Leu Ser Ser Thr Phe Val Tyr Asn Thr Val Asn Lys Ile Asp
137 125 130 135
139 Gln Gly Ala Ile Asp Leu Leu His Asn Val Thr Glu Leu Thr Asp
140 140 145 150
142 Leu Leu Lys Ala Arg Asn Ser Pro Asp Leu Asp Arg Val Glu Asp
143 155 160 165
145 Pro Ala Asp Ser Ala Ser Phe Phe Pro Asp Leu Val Trp Thr Leu
146 170 175 180
148 Arg Asp Phe Cys Leu Gly Leu Glu Ile Asp Gly Gln Leu Val Thr
149 185 190 195
151 Pro Asp Glu Tyr Leu Glu Asn Ser Leu Arg Pro Lys Gln Gly Ser
152 200 205 210

```

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154	Asp	Gln	Arg	Val	Gln	Asn	Phe	Asn	Leu	Pro	Arg	Leu	Cys	Ile	Gln
155					215					220					225
157	Lys	Phe	Phe	Pro	Lys	Lys	Lys	Cys	Phe	Ile	Phe	Asp	Leu	Pro	Ala
158					230					235					240
160	His	Gln	Lys	Lys	Leu	Ala	Gln	Leu	Glu	Thr	Leu	Pro	Asp	Asp	Glu
161					245					250					255
163	Leu	Glu	Pro	Glu	Phe	Val	Gln	Gln	Val	Thr	Glu	Phe	Cys	Ser	Tyr
164					260					265					270
166	Ile	Phe	Ser	His	Ser	Met	Thr	Lys	Thr	Leu	Pro	Gly	Gly	Ile	Met
167					275					280					285
169	Val	Asn	Gly	Ser	Arg	Leu	Lys	Asn	Leu	Val	Leu	Thr	Tyr	Val	Asn
170					290					295					300
172	Ala	Ile	Ser	Ser	Gly	Asp	Leu	Pro	Cys	Ile	Glu	Asn	Ala	Val	Leu
173					305					310					315
175	Ala	Leu	Ala	Gln	Arg	Glu	Asn	Ser	Ala	Ala	Val	Gln	Lys	Ala	Ile
176					320					325					330
178	Ala	His	Tyr	Asp	Gln	Gln	Met	Gly	Gln	Lys	Val	Gln	Leu	Pro	Met
179					335					340					345
181	Glu	Thr	Leu	Gln	Glu	Leu	Leu	Asp	Leu	His	Arg	Thr	Ser	Glu	Arg
182					350					355					360
184	Glu	Ala	Ile	Glu	Val	Phe	Met	Lys	Asn	Ser	Phe	Lys	Asp	Val	Asp
185					365					370					375
187	Gln	Ser	Phe	Gln	Lys	Glu	Leu	Glu	Thr	Leu	Leu	Asp	Ala	Lys	Gln
188					380					385					390
190	Asn	Asp	Ile	Cys	Lys	Arg	Asn	Leu	Glu	Ala	Ser	Ser	Asp	Tyr	Cys
191					395					400					405
193	Ser	Ala	Leu	Leu	Lys	Asp	Ile	Phe	Gly	Pro	Leu	Glu	Glu	Ala	Val
194					410					415					420
196	Lys	Gln	Gly	Ile	Tyr	Ser	Lys	Pro	Gly	Gly	His	Asn	Leu	Phe	Ile
197					425					430					435
199	Gln	Lys	Thr	Glu	Glu	Leu	Lys	Ala	Lys	Tyr	Tyr	Arg	Glu	Pro	Arg
200					440					445					450
202	Lys	Gly	Ile	Gln	Ala	Glu	Glu	Val	Leu	Gln	Lys	Tyr	Leu	Lys	Ser
203					455					460					465
205	Lys	Glu	Ser	Val	Ser	His	Ala	Ile	Leu	Gln	Thr	Asp	Gln	Ala	Leu
206					470					475					480
208	Thr	Glu	Thr	Glu	Lys	Lys	Lys	Lys	Glu	Ala	Gln	Val	Lys	Ala	Glu
209					485					490					495
211	Ala	Glu	Lys	Ala	Glu	Ala	Gln	Arg	Leu	Ala	Ala	Ile	Gln	Arg	Gln
212					500					505					510
214	Asn	Glu	Gln	Met	Met	Gln	Glu	Arg	Glu	Arg	Leu	His	Gln	Glu	Gln
215					515					520					525
217	Val	Arg	Gln	Met	Glu	Ile	Ala	Lys	Gln	Asn	Trp	Leu	Ala	Glu	Gln
218					530					535					540
220	Gln	Lys	Met	Gln	Glu	Gln	Gln	Met	Gln	Glu	Gln	Ala	Ala	Gln	Leu
221					545					550					555
223	Ser	Thr	Thr	Phe	Gln	Ala	Gln	Asn	Arg	Ser	Leu	Leu	Ser	Glu	Leu
224					560					565					570
226	Gln	His	Ala	Gln	Arg	Thr	Val	Asn	Asn	Asp	Asp	Pro	Cys	Val	Leu

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227          575          580          585
229  Leu
232 <210> SEQ ID NO: 3
233 <211> LENGTH: 2308
234 <212> TYPE: DNA
235 <213> ORGANISM: Homo sapiens
237 <400> SEQUENCE: 3
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240  aggagtattt gaacaaatca ctaagactca tggaacaatt attggcatta 100
242  cttcagggat tgtcttggtc cttctcatta tttctatatt agtacaagtg 150
244  aaacagcctc gaaaaaaggc catggccttg aaaaccgctt ttaataaaac 200
246  cgggttccaa gaagtgtttg atcctcctca ttatgaactg ttttactaa 250
248  gggacaaaga gatttctgca gacctggcag acttgctcga agaattggac 300
250  aactaccaga ggatgcggcg ctctccacc gcctcccgct gcattccacga 350
252  ccaccactgt gggctgcagg cctccagcgt caaacaagc aggaccaacc 400
254  tcagttccat ggagcttctt ctccgaaatg actttgcaca accacagcca 450
256  atgaaaacat ttaatagcac cttcaagaaa agtagttaca ctttcaaaca 500
258  gggacatgag tgccctgagc aggccttggg agaccgagta atggaggaga 550
260  ttccctgtga aatttatgtc agggggcgag aagattctgc acaagcatcc 600
262  atatccattg acttctaata ttctgctaata ggtgatgtga attcttaggg 650
264  tgtgtacgta cgcagcctcc agggcaccat actgtttcca gcagccaacc 700
266  cttttctccc atcacaacta cgaagacctt gatttaccgt taacctattg 750
268  tatggtgatg tttttattct ctcaggcagt ctatatatgt taaaccaatc 800
270  aaggaactta ctctattcag tggaaacaat aatcatctct attgcttggg 850
272  gtcatttata ggaagcactg ccagttaaag agcattagaa gaggtggttg 900
274  gatggagcca ggctcaggct gcctcttcgt tttagcaaca agaagactgc 950
276  tcttgactga taacagctct gtcaatatat tgatgccaca ataaacttga 1000
278  tttttcttta cattcctttt atttttcctt tctctaaatt taatttgttt 1050
280  tataagccta tcgttttacc atttcatttt cttacataag tacaagtggg 1100
282  taatgtacca catacttcag tataggcatt tgttcttgag tgtgtcaaaa 1150
284  tacagctagt tactgtgcca attaagaccc agttgtattt caccatctg 1200
286  tttcttcttg gctaactctt gtacttctgc cttttaatta ctgggccctt 1250
288  attccttatt ttctgtgaga aataatagat gatatgattt attacctttc 1300
290  aattatatat ttctcagtta tactagaaaa ttccataatc ctgggatata 1350
292  tgtaccattg tcagctatga ctaaaaattt gaaaaagata aaaatttcta 1400
294  gcaagccttt gaagtttacc aagtatagtc acattcagtg acagcccatt 1450
296  cattccagta aagaatcatt tcattcactt tgggagaggc ctataattac 1500
298  atttatttgc aatgtttctc ttctgctagat tgttacatag ctcccattct 1550
300  gttgggtttg cttacagcat atggtaacca aggttagatg ccagttaaaa 1600
302  ttcccttaga attggatgag ccttgagatt gcttcttaac tgggacatga 1650
304  catttttcta gctcttatca agaataacaa cttccacttt tttttaaaact 1700
306  gcacttttga ctttttttat ggtataaaaa caataattta taaacataaa 1750
308  agctcattgt gttttttaga cttttgatat tatttgatac tgtacaaaact 1800
310  ttattaaatc aagatgaaag acctacagga cagattcctt tcagtgttca 1850
312  catcagtggc tttgtatgca aatatgctgt gttggacctg gacgtataaa 1900
314  cttattgtaa agaccttgga aatgtggaca taagctcttt ctttctttt 1950
316  gttactgtat ttagtttgtg ataaattttt cactgtgtga tatttatgct 2000
318  ctaaatacct acacaaatcc catattaaaa tatacattgt acctgacct 2050
320  ttaatcatgt tatttatgcc accaaggttg tggatcttaa ggtatgtatg 2100

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322 gaaaggaact catttatcaa attgtaagta atacagacat gccatttaaa 2150  
 324 agaggtaaatt tcttggtttc tatattttgt tagtaaattc tcaatgaaat 2200  
 326 aagttgaagt ttcactggat ttcattaact tttaaattatt acatatatgt 2250  
 328 gttttctcag attagtgaat attgtgacct taaatttaac acacatatatc 2300  
 330 tgcctcag 2308

332 &lt;210&gt; SEQ ID NO: 4

333 &lt;211&gt; LENGTH: 201

334 &lt;212&gt; TYPE: PRT

335 &lt;213&gt; ORGANISM: Homo sapiens

337 &lt;400&gt; SEQUENCE: 4

338 Met Leu Phe Thr Ser Phe Val Glu Gln Lys Lys Lys Ala Gly Val  
 339 1 5 10 15  
 341 Phe Glu Gln Ile Thr Lys Thr His Gly Thr Ile Ile Gly Ile Thr  
 342 20 25 30  
 344 Ser Gly Ile Val Leu Val Leu Leu Ile Ile Ser Ile Leu Val Gln  
 345 35 40 45  
 347 Val Lys Gln Pro Arg Lys Lys Val Met Ala Cys Lys Thr Ala Phe  
 348 50 55 60  
 350 Asn Lys Thr Gly Phe Gln Glu Val Phe Asp Pro Pro His Tyr Glu  
 351 65 70 75  
 353 Leu Phe Ser Leu Arg Asp Lys Glu Ile Ser Ala Asp Leu Ala Asp  
 354 80 85 90  
 356 Leu Ser Glu Glu Leu Asp Asn Tyr Gln Arg Met Arg Arg Ser Ser  
 357 95 100 105  
 359 Thr Ala Ser Arg Cys Ile His Asp His His Cys Gly Ser Gln Ala  
 360 110 115 120  
 362 Ser Ser Val Lys Gln Ser Arg Thr Asn Leu Ser Ser Met Glu Leu  
 363 125 130 135  
 365 Pro Leu Arg Asn Asp Phe Ala Gln Pro Gln Pro Met Lys Thr Phe  
 366 140 145 150  
 368 Asn Ser Thr Phe Lys Lys Ser Ser Tyr Thr Phe Lys Gln Gly His  
 369 155 160 165  
 371 Glu Cys Pro Glu Gln Ala Leu Glu Asp Arg Val Met Glu Glu Ile  
 372 170 175 180  
 374 Pro Cys Glu Ile Tyr Val Arg Gly Arg Glu Asp Ser Ala Gln Ala  
 375 185 190 195  
 377 Ser Ile Ser Ile Asp Phe  
 378 200

380 &lt;210&gt; SEQ ID NO: 5

381 &lt;211&gt; LENGTH: 1591

382 &lt;212&gt; TYPE: DNA

383 &lt;213&gt; ORGANISM: Homo sapiens

385 &lt;400&gt; SEQUENCE: 5

386 tctgggagcg cgcgacgtca gtttgagttc tgtgttctcc ccgcccgtgt 50  
 388 cccgcccgcac ccgcgcccgc gatgctggcg ctgcgctgcg gctcccgcgtg 100  
 390 gctcggcctg ctctccgtcc cgcgctccgt gccgctgcgc ctccccgcgg 150  
 392 cccgcgcctg cagcaagggc tccggcgacc cgtcctcttc ctctcctcc 200  
 394 gggaacccgc tcgtgtacct ggacgtggac gccaacggga agccgctcgg 250  
 396 ccgcgtggtg ctggagctga aggcagatgt cgtcccaaag acagctgaga 300

**RAW SEQUENCE LISTING ERROR SUMMARY**

DATE: 06/30/2006

PATENT APPLICATION: US/10/527,469

TIME: 08:38:26

Input Set : F:\P1975R1.txt

Output Set: N:\CRF4\06302006\J527469.raw

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:66; Xaa Pos. 17

Seq#:95; N Pos. 210

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/527,469

DATE: 06/30/2006

TIME: 08:38:26

Input Set : F:\P1975R1.txt

Output Set: N:\CRF4\06302006\J527469.raw

L:4935 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66 after pos.:15  
L:7072 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:95 after pos.:200